

# **New Road Financing Model: A Distance Based Charging System**

*Electric Vehicle Stakeholder Meeting # 1  
Of the Road User Fee Task Force*

*ODOT Region 1 HQ, Portland, Oregon  
November 15, 2011*

## **In Attendance:**

### *RUFTF Members:*

Rep. Beyer, *Chair*, Oregon State House of  
Representatives  
Craig Campbell, AAA

### *Ex Officio:*

James Whitty, ODOT Office of Innovative  
Partnerships Program Manager  
Paul Cosgrove, Alliance of Auto Manufacturers  
Joanie Cosgrove, Alliance of Auto Manufacturers  
Jenny Liu, PSU Economics  
Roger Chen, PSU Civil Engineering  
Ashley Horvat, ODOT Office of Innovative  
Partnerships, Transportation Electrification  
Program  
Art James, ODOT Office of Innovative Partnerships,  
Transportation Electrification Program  
Gary Graunke, OEVA  
Warren Fish, Multnomah County Chair  
Gordon Feighner, CUB  
Emmaline Pohnl, CUB  
Barry Woods, Drive Oregon  
Jack Opiola, D'Artagnan Consulting  
Matthew Dorfman, D'Artagnan Consulting  
Mark Brady, Business Oregon  
Dave Reinhard, Public Affairs Counsel/GM  
Joe Mortarec, Thorn Run (Rep. ECotality)

## **Meeting Synopsis**

### • ***Objectives***

- Welcome, introductions
- ODOT to communicate RUFTF's intentions for mileage charging in Oregon
- Q & A
- Develop and prioritize issues list
- Dialogue-frame and resolve issues
- Set next meeting date

- ***Outcomes***
  - Discourse on issues list and honed in on items that need further consideration and discussion
    - Cost Responsibility
    - Consider externalities in this algorithm
    - May need to decide if ODOT wants to pursue weight of light duty vehicles, needs further analysis
    - Transitional rate to eventual full rate
    - Penalties
    - Allocation of revenues
  - Scheduled next committee meeting for January 26, 2012 at same location
  
- ***Next Steps***
  - Schedule a meeting with ODOT and other important stakeholders describing how cost responsibility is determined in paying for the upkeeps of the roads
  - EV stakeholders can bring document with benefits of EVs and why bringing to scale is something to consider
  - Further analysis and discussion on the above mentioned issues
  - Look into whether # of EVs in OR and # projected is enough to make a difference in the incoming revenue

## **Meeting Summary**

### ***Welcome/Introductions/Purpose***

- Rep. Beyer: commenced the meeting and the group proceeded with introductions.
- James Whitty:
  - Purpose is to address issues that were raised during legislation and propose resolutions to them.
  - Wants to flesh out the issues list and find out if there are any additional issues not included on this list.
  - RUFTF identified transportation funding as an issue (vehicle efficiency continues to increase, state decline in fuel tax receipts, economic downturn, government policy and changing marketplace). CAFÉ standards were raised, warranted for number reasons because of climate change policy, international relations, economy, but it doesn't help revenue picture for the road system.
  - Future predicts change in motive power, started seeing this 12 years ago with introduction of hybrid electric, now significant part of our fleet.
  - Result: 2025 CAFÉ standard impacts fuel consumption and will be detrimental for state highway revenues.
  - RUFTF created to address this issue, 50 % dependent on fuel tax for revenues, weight distance tax, collection mechanism is pegged at fuel tax levels.

- The old vision; gain knowledge through history. Miles collected from odometer, understood where vehicle was for the purpose of allocating miles, vehicle went to fuel pump, identified by electronic recognition, and the data went to POS system. This was then shared with a central computer where mileage rates were applied to data, motorist paid mileage charge and fuel tax was deducted.
- AASHTO adopted policy to support this and federal government created commissions to support this movement.
- Old Vision of VMT Critique:
  - Anticipated one box in the car (GPS), mandated by government would be long period for implementation, have to start with new vehicles, complex and expensive, slow technological evolution.
  - Designed so that could not track devices but nobody believed it.
- New Goal: Minimize disruption, use technology already in the vehicles (EVs)
- Big change: first employed a system engineer's approach. This new approach addresses people's concerns and aims to be parsimonious.
- Note existing realities of marketplace (new GPS in cell and cars)
- What the public wants
  - Potential for two types of reporting: On board electronics (basic wouldn't have availability to report location).
  - Jim is advocating for other reporting options. RUFTF has not endorsed.
  - Self reporting (once a year) via an online intelligent form that could identify mistakes. Reason interested in this, people who still do not like electronics. Investigate these two options because we have to ensure that it works for ODOT by making sure that people are not cheating.
- Cloud reporting:
  - OBU-don't care what it is as long as the data format syncs with OBU collection system. Marketplace would provide this. Don't anticipate a government box. Don't care how it gets to the account management system (could be bank, insurance company, etc.).
  - Important to have marketplace options, should use the marketplace rather than create something by itself.
- VMT work underway:
  - Jim's recommendation is that this is independent from ODOT, not known to accept innovation and change. As long as standards are met and win in marketplace, not necessary to come from government agency.
- Why start w/ EVs
  - Not paying anything now so not losing anything if there is leakage
  - Scalability easier
  - Legislature will have confidence

## Q & A

- Warren Fish: What's your idea of simple?
  - James Whitty: My idea of simple is collected via GPS and set up auto debit from my bank account.
- Roger Chen: Pay monthly?
  - James Whitty: The bill said that the frequency would be developed depending on circumstances of individual motorist. Vague, but had a list of things to consider. Monthly reporting would make no sense for certain motorists but for others who might drive a lot it may make sense for them to receive monthly bills rather than a large bill at the end of the year. Not set out exactly, requires it to consider individual circumstances.
- Roger Chen: Thinks what report back to users is important, impacts compliance, they get benefit of their monthly VMT and feedback is important.
- Gary Graunke: Prefers simple self-reporting, people are used to doing this with insurance companies, tricky part is how to avoid cheating. A lot of our devices of data integrity mechanisms, for the most part he thinks that very promising and could allay fears for the techno-phobes. Also mentioned reporting at DEQ where they collect mileage. Also concerned about cost of installing device, just money lost, not like Zipcar where they can deduct this (those with legacy cars), thus a paper alternative would be appealing. Flat thing is really hard to do, some people will be right on, but others will be paying too much. A lot of EV drivers have hobby vehicles where they don't drive them very much, so a flat fee would unduly impact these people. Impacts innovation from members in EV group who are experimenting with new things.
- Barry Woods: OEC, IBEW, & others expressed interest but couldn't be here. Big picture observations: Sam Ori (Electrification Coalition) referenced OR & WA specifically at the EV Roadmap 4 Conference in Portland, and efforts to implement revenue based systems for EVs. Ori opined, "Why are we doing this at time of fragile state for adoption?" Barry thinks we need to be conscious of public perception, may not have known specifics, but big picture it is important for task force to be aware that OR is viewed successful with infrastructure but not deployment. Perception is an issue when numbers are down and TEEC is aggressively moving to get share of OR's 30k EVs up. He just wanted reinforce where we are and how cautiously we need to proceed. Diffusing that perception is possible by communicating to the public that it is broadly anticipated to be applicable to ICE vehicles, nobody in EV wants to argue about fairness, should be part of the broad purpose of it.
- Barry Woods: Policy consideration question: How is RUFFT integrating revenue systems with larger policy being addressed (OR Global warning comm. & GOV 10 year plan task force looking at creatively figuring out maybe utility system to address efficiency as element of tax system, to incentivize efficient vehicles)? How does this piece of puzzle fit into larger policy environment?

- Warren Fish: Gas tax is a great tax, very opaque, efficiency challenge that we have seen on horizon for long time. Any thoughts behind direction state wanted to go on instead of raising gas tax, what's rationale and how were decisions made a long time ago as we set on a VMT course? Has this changed as different vehicles come on the market?
- James Whitty: Thinking hasn't changed, it isn't matter of getting to 100 MPG, vehicles will improve beyond that, how do we ensure revenue system doesn't collapse, unduly impacting inefficient fuel vehicles and EVs are still using road. Won't generate revenue, raising taxes on smaller group of people, probably don't buy new cars, may not be able to handle it. System just wouldn't work even if you try to increase it.
- Warren Fish: The people in the middle have an incentive on which car to choose may not be bad thing for the state.
  - James Whitty: RUFTF and legislature didn't show inclination to charge everyone mileage tax, fuel inefficient vehicles stay on gas tax. Revenue system is out of whack with federal policies that have been implemented to move towards more efficient vehicles.
- Mark Brady: # of EVs on road now not too big of a deal. But, if ultimate goal to move towards LIGHT DUTY VEHICLES, hope that look into system that takes into account size, weight, etc. Don't you want to set a precedent now while you have a chance? Vehicles that do more damage to the road should inherently pay more.
  - Rep. Beyer: Bigger batteries cannot go as far, less VMT.
  - James Whitty: This is actually a bullet point on issues list. There is a practical issue and DMV is here to explain, we currently do not capture weight under 10k lbs, DMV would have to change system to collect weight.
    - DMV: Do you base on GBWR or what customer tells you and capture for all vehicles in system today? If vehicle is under 10k lbs doesn't do any more damage between variable weights.
  - AAA: AASHTO has moderated as truck become heavier, mostly because of axel distribution. Below 10k don't see variability. Don't know if engineering has changed since AASHTO has looked at it. It is worth looking at. Not sure if we will come up with any difference.
  - James Whitty: True that current system can't do it, but to change system: what impact? Cost wise?
    - DMV: BIG. Just to capture weight, not too big of a change, if collect registration fee big change. 100ks.
  - Gary Graunke: If you have VIN #, couldn't you find out info about vehicle?
    - DMV: Only 1/3 of OEMs include GBWR as part of the VIN, mfg would have to provide additional info. Could be a database that decodes info about VIN.
  - PSU: With info that we have, wouldn't need to get weight from customers, get from mfgs. There must be a database out there, just needs to be mapped, wouldn't need to collect from consumers or drivers themselves.

- DMV: Would have to load database and match to vehicles. Could be errors when it used to be manually entered.
  - Jack Opiola: Weight carrying capabilities are not in classes below 10k lbs. Intention from mfgs is to shed weight, in the future may even be lighter, even for safety, movement to composite materials to carry weight for longer distances and more miles/kW.
  - Mark Brady: If designing system based on something else, it should fully consider destruction of roads, and I need to see proof that this is the case (under 10k).
- Barry Woods: Opportunities to use multipliers to incentivize. When changing a system there will be inherent resistance. Intriguing to me is that you can incentivize different uses down the road. Interesting policy, creative way to visualize based on behavior, etc. Once system is in place we will have some pretty interesting tools to change how we drive and to transform incentives and make people move towards the purchase of efficient vehicles.
- Rep. Beyer: Space is a consideration more than weight. Leafs take up space on our roads and these cars are most likely going to be in more urban areas where there is more traffic, practicality of them right now. Push is practicality of it and the cost.
  - James Whitty: Rep. Beyer raises important point, next meeting have to explain that we have to allocate cost. 2 factors are weight (proxy for damage) and space. DAS project with ODOT on future costs (take all projects into account), take into account what type of vehicle resp. for those costs (bridges as a result of trucks repairing, costs go to trucks) (adding lanes, cars get hit for that cost), when look at EVs and take weight into account, only one factor and one small sliver of cost, thus space may be more of a factor.
- Gary Graunke: Playing devils advocate, most of the time we are building roads to handle heavy trucks.
  - AAA: When determining costs, they take into account super structure and the portion of what is required for trucks and LIGHT DUTY VEHICLES.
- James Whitty: Could get people explaining this policy in another meeting.
- Barry Woods: We need to ask ourselves and take into account the following: What are the benefits of EVs? Fairness is valid, but EVs fall outside neat little boxes, \$ into community that otherwise shipped out with fossil fuel dollars, emissions in urban environment, unusual attributes but at scale could have meaningful impact. Maybe EV stakeholders can bring benefits of EVs and why bring to scale is something to consider.
  - Jack Opiola: OR is innovative to even consider weight and space, not all states do, collected by state on weight-distance setting. Policy addressing cars not in that current initiative.
  - AAA: OR does cost responsibility study every 2 years, very innovative as it is. However, adding in external costs, long range goal of charging what their use impact is, the amount of technology needed don't have a bridge or ability to collect data to get to that finite level of detail. Identify externalities is next step, efficient fee method

- Roger Chen: Was congestion pricing considered previously?
  - James Whitty: Yes, let's discuss this alone, not direction of meeting.
- Roger Chen: Understand VMT experiment done in OR, are findings available?
  - James Whitty: Absolutely, we will talk and I can provide you with these findings.
- PSU: Logistics of collecting VMT data-elaborate on why want to use GPS system, is it b/c we want to use data to collect other types of data for efficiency?
  - James Whitty: Not requirement, it is an option. DMV-Also to id when just driving in the state.
  - Rep. Beyer: @ ODOT already has the ability if someone purchases something not being used on road, submit doc to ODOT to refund tax. If not using GPS, could send in documentation on mileage traveled outside of the state.
- James Whitty: We can have session on cost responsibility and then everyone can decide if want to pursue weight option. Take to RUFTF to decide if they would like to pursue without costing ODOT too much. Legislature wants fiscal impact to be as low as possible. Helps politically to have lower fiscal impact.
- Rep. Beyer: Legislature wants \$ to go into the roads and as little as possible into computer systems.
- James Whitty: Will take up with task force.

### ***Develop and prioritize issues list/Dialogue-frame and resolve issues***

- Jim: Any errors on the "No complaints about list?" Yes, we actually need to revisit:
  - Transitional rate to eventual full rate, not quite
  - Shouldn't assume penalties left in B version of bill appropriate.
  - Allocation of revenues (50/30/20)
  - Over time diff. allocations (Jobs and Transportation Act changed allocation to give more to cities and counties)
- Stakeholder group: Why not revisit given fact that EVs in urban areas?
  - Rep. Beyer: legitimate question, last bill Jobs Transp. Act.
  - Auto Association: Open opportunity for ICE vehicles to participate in this program?
    - James Whitty: Don't know that we have plans for that- Senator Starr would like to see voluntary opt-in, but this probably won't happen before 2013 session. Talk about having this sort of thing.
    - Auto Association: Industry has good idea about marketplace, in fact very few cars doing this in OR for many years unless you move to other kinds of propulsion systems.
      - Mark Brady: More incentives in NE & CA, that's why less purchases.
      - Auto Association: Not really because of lack of or existence of incentives, mostly because of ZEV mandate. For GM, presence or lack of incentives has little impact on purchases. OR will not

get the same amount of vehicles that are necessary to make an impact...JIM WANTS THIS NOTED SO THAT WE CAN ADDRESS.

- Rep. Beyer-thinks of challenges on how far EVs will go, pretty wide open state, people will have to factor that in. Also go back to comments about charging stations, fact that this is market-driven or consumer driven as opposed to state-driven.
- Barry Woods: Much too early to foretell what sales rate are going to be, factors that have yet to be understood, looking at developing technologies and comparing to existing technologies which is inherently unfair. Cost is going down, variety increases, electricity is much cheaper than gasoline as battery costs go down, and people will look very seriously at EV, in terms of pocketbook. Benefits need to be evaluated from energy independence standpoint, externalities, dollars in communities. Not sure if there is value to piloting this thing to death, maybe more of a good idea to conduct consumer outreach and education.
- James Whitty: Like to do opt-in, but problem is that the only way people will opt-in is if there is an advantage, cost something to run, do we have \$ to do so, not simple thing to put together.
- Responsible persons
  - Auto Association: would like to revisit non-residents if possible
- Rate structure
  - James Whitty: If DMV does not have characteristic (which is quite common) becomes more complicated.
- Art James: How are rates set and changed?
  - James Whitty: Legislation. Gen. Counsel opined that any revenue raising measure that raises revenue for general transportation purposes is a TAX, requiring 36 in house to pass and 18 in senate. Legislature sets rate for tax, cannot send off to agency.
- Methods of compliance
  - James Whitty: A lot of concern b/c vague in bill, but is still be vague because things can change. These are issues we are trying to address now
- Auto Association: Larger question, relates to something said earlier, 2013 session to deal with, you mentioned "others" might push for 2012 session, who are these others?
  - James Whitty: Not for me to disclose, legislators put in requests.
- Penalties

- James Whitty: B version of bill very protective. Even private firm would have to follow it. Could be auto offset built into the system, working on this to figure out in the next year.
- Additions??
  - Rep. Beyer: Bit of a bias, hoping that as you look at these and that you have concerns about them, if you think there are ways to address concerns, please share, if no way to get past concerns, let us know too, to determine where to pick battles. It would help her a lot as we move forward.
  - James Whitty: Wants to have additional meetings with smaller group to address specific issues.
  - CUB: Can we submit written comments?
    - James Whitty: Yes, please email them to me.

### ***Next meeting(s)***

- James Whitty will schedule cost responsibility meeting separately
- Group decided on Next EV Stakeholder Meeting: Thursday, January 26, 2012, shoot for same room (Conf Rm. # 344 @ ODOT Region 1 HQ) and same time period (1000-1200)